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25+ Liferay Interview Questions and Answers for Portal D

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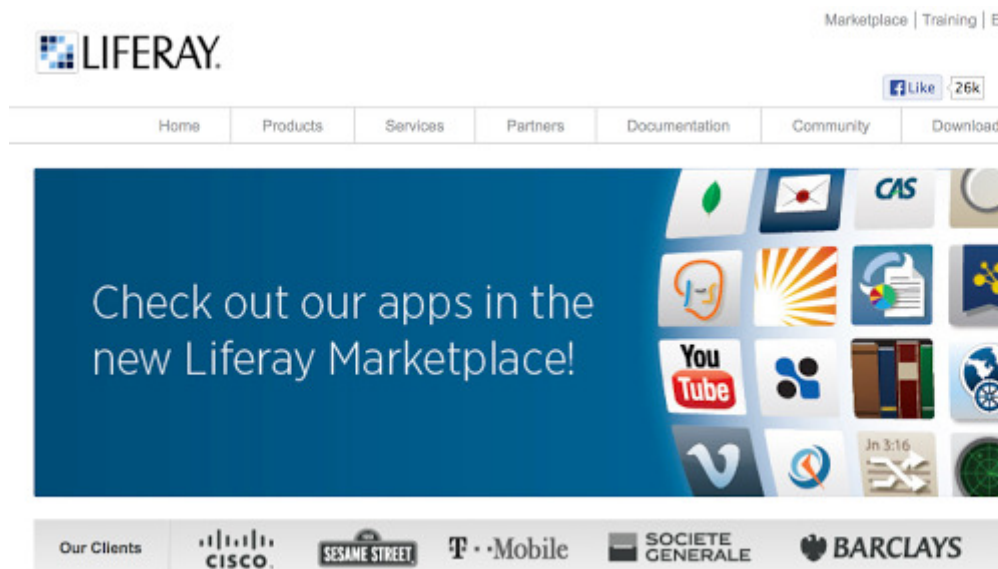
Liferay is one of the most popular JSR compliant open source portal. This can be used to drive mu and feel. Liferay is developed in Java and the major portlet development on it is also supported by

The latest releases of liferay has been really feature rich and seen a increasing demand in liferay websites using single liferay server installation is one of the main reason of liferay gaining populari

Liferay jobs are really high paying jobs due to being specialized in portlet segment of java web app portals available with free and paid options. To be highly valuable developer you must focus your k development, this will ensure you can do development on any other JSR comliant portal as well.

Another positive aspect of Liferay portlet development is "The Liferay marketplace", this can give y portlet to big businesses and grow your own business.

I have worked on liferay for more than 5 years and found that following interview questions are mu developer job.

What is a Liferay Portal?

In general, a web portal represents a web application that provides a single point of access to varie

Functionality of a portal can extended very easily by creating custom applications that can run insi
portlets.

For running portlets you need application server that can run a portlet container spec (JSR168 or J
enterprise portal products available.

Liferay portal is an open source portal and below are the benefits of using Liferay portal:

- Content management system(Documents, Articles).
- 2-stage,3-stage workflows and publishing.
- Social networking. 4)Sites and organization basis pages.
- Integration with third party like LDAP, Solr, SSO(CAS, Siteminder).
- Portlets realted to Wiki's, News, Finance, Social, Workflow, Collaboration.
- Compatible with different Operating systems, databases and APP servers.
- Compatible with UI technologies and web services.
- Compatible with different scripts like PHP, Ruby, Grails, Python.
- Suppport of hot deployment feature.

What is a Portlet?

Liferay portal comes with different portlets by default. These portlets are nothing but different smal
Portlets are pluggable software components that are managed in a web portal.

In general words you can call them as different catalogues as portlets produce fragments of marku
portal page is displayed as a collection of portlet, thease multiple small applications together maki
together makes one community or enterprise portal. Hence a portlet (or collection of portlets) reser
a portal.

Portlet is a small application to fulfill the requirement of certain domain. Inter portlet communicatio
support hot deployment feature of Liferay Portal.

What is the difference between Hook, EXT and Portlet?

Liferay provides 3 ways to extend the functionality of a Liferay portal. Each of the way fits is good f

Hook

Liferay portal comes with a bundle where all the default built in portlets exist. Typically if any custo
portal properties. We need to go by Hook implementation. Hook is supported by hot deployment. L
Whenever possible, hooks should be used in place of Ext plugins, as they are hot-deployable and

Some common scenarios that require the use of a hook are

- When you have to perform a custom action on portal startup
- When you have to perform a custom action on user login
- When you need to overwrite or extend portal JSPs
- When you need to modify portal properties
- When you need to replace a portal service with your own implementation.

EXT

Liferay EXT Plugins are the most powerful way to extend the portal functionality. If any customizati
be done through EXT for example LDAP users and user groups import modification. but here in EX

EXT Plugins should be used only in case the portal functionality can not be extended using Portle
develop and may cause maintenance issues in case you are trying to upgrade.

From liferay documents, The main use cases in which an Ext plugin may be used are:

- Customizations to portal.properties (that is not supported by Hook Plugins)
- Customizing and making changes to the Struts Actions for portal
- Customizations of the Liferay beans declared in Liferay's Spring files
- Adding JSPs that are referenced from portal properties that can only be changed from an ext plugin (be sure to check if t before doing this)
- Direct overwriting of a class (not recommended unless it's strictly necessary)

Portlet

Portlets are the most common and easiest way to extend and provide a custom functionality for a l
the requirement of certain domain. It is basically a bunch of code(Java Files, JSP, CSS, Java Scrip
deployment.

Liferay also has a marketplace where a lot of useful portlets are available for download and these
We recently contributed a Speed reading portlet and a My IP Address portlet in this marketplace fo

What JSR version Liferay implements? Why JSR compatibility is important while choosing

JSR is a "Java Specification Request". Liferay Portal is developed to adhere to JSR 168 and JSR 2
This specification is created by committee of JEE portal vendors. This specification is designed to a
portals and portlets.

Liferay supports mainly below JSRs.

JSR-168(Portlet 1.0)
JSR-286(Portlet 2.0)
JSR-127(JSF 1.0)
JSR-170
JSR-314(JSF 2.0)
JSR-329

Why these standards are defined?

These standards are defined for the benefit of portal users (end customers). Before these standard
use one portal and there was no easy way to switch between different portal vendors. Earlier porta
were developed using proprietary API, technology and programming techniques. The JSR 168 and
portlets can be developed that will help users in long run.

Benefits of Following JSR Standards

Following these standards will ensure that there is no vendor lock in. However this can be guarant
sticking to the standards.

What is a Portlet Lifecycle?

Following is the portlet lifecycle:

- init():It mainly initializes the portlet.
- render(): It takes the HTML output to User Interface. It mainly render the view in term of JSP/ portlet.
- Destroy: This method takes care of releasing the portlet resources.

What Is The Difference Between View Mode And Edit Mode Of Portlets?

The modes of a portlet are typically related to the types of operations a user can perform on the po to do read only operations, whereas in edit mode user can add/update the data in the portlet.

Each portlet mode has a method which handles it:
doView()
doEdit()
doHelp()

These methods will contain mainly our "traffic directing" logic, which are responsible to decide wha

Once the view has been determined, we will forward on to methods which actually implement that For standard portlet view modes have two views:

- The default view which shows the list of items.
- The form, where users will mainly do the add and edit action.

In this where end user can edit the particular item, is called edit mode of portlet.

What Is A Liferay Theme? What Are The Advantages Of Using Them?

Liferay themes are the way to customize look and feel of a liferay portal page. The themes are exte separately on a portal and each page on the portal can choose a different theme (if required).

Themes are really powerful way to run multiple websites from a single portal. You can host multipl different look and feel. This allows you to be unique at the same time save a lot resources on webs

A lot of companies use liferay for creating multiple unique websites with the help of extraordinary t

Themes are also available from marketplace.

For developing on our own, we have option of using VM pages(Velocity templates). Liferay provide the portal same like portlets war files. So number of themes we can be deployed into Liferay portal

user interface as per the requirement of end user for different site or organization pages.

How To Use LDAP Authentication With Liferay?

LDAP is lightweight directory access protocol that is most commonly used for authentication and a users and usergroups of any organization with certain serach filter like DN entries. In the control pa LDAP settings so that portal can contact the third party like LDAP and fetch the required users and

For example Active directory is a LDAP implementation which can store users. Liferay support integ admin control panel.

We need to provide the settings in control panel - > portal settings -> LDAP
This will require LDAP URL, username, password, users search filters mappings, groups search fil

What Is Portal-ext.properties File? How This Can Be Configured And Used In Liferay?

Liferay Portal comes with default configurations that are stored in portal.property file. You can use in portal.properties file.

This allows you a clean way to keep your own copy of configurations that can be used outside the the portal.

What Is Inter-portlet Communication? Why Is It Required To Use JSR Style Inter-portlet Co

Sometimes we have the requirement where we need to establish communication in between two p portlet redirecting the end user to other portlet where some kind of result is displaying as per actio

So in this use case we have to use liferay inter-portlet communication mechanism which serve the and provide the result to the second portlet where the action result needs to be displayed. We can mechanism.

JSR style inter portlet communication ensures that your portlets are going to work on any other JS specific way to communicate between portlets than you may not be able to deploy and run the sar (e.g. Apache Pluto)

What Is A Liferay Portal Instance?

Liferay portal ships with the one liferay portal tomcat bundle which is up and running in any server more than one liferay instances running from one database.

Liferay Portal allows you to run more than one portal instance on a single server. The Portal Instan
these instances. Data for each portal instance are kept separate. All portal data, however, is kept i

Each portal instance requires its own domain name. Liferay will direct users to the proper portal ins
you configure an instance, we need to configure its domain name in our network first. When we ar
tab - > Add button.

It will be prompted for four fields and a check box:

- **Web ID**: A general convention is to use the domain name for this. It's a user-generated ID for
- **Virtual Host**: Put the domain name you configured in your network here. When users are dir
  domain name, Liferay will then be able to send them to the proper portal instance.
- **Mail Domain**: Enter the domain name for the mail host for this instance. Liferay will use this
- **Max Users**: Enter the maximum numbers of user accounts you would like your portal instance
- **Active**: Use this check box to choose whether to create an active or an inactive portal instance

Now we need to click Save. Now navigate to the portal using new domain name. We will see that l
new portal instance which can now be up and running.

How Can I Configure Two Different Domain Names (e.g. First.example.com And Second.exam

At the time of creation of any site we need to provide domain names which further take it as site do
domain name as required through the control panel of liferay portal. Single instance of Liferay Por
names via communities(sites).

When we will go to control panel -> Site settings -> we can provide the site URL, details like site(co
status and virtual host.

How Can I Configure Liferay To Use Email Address As User Name Instead Of Screen Name?

We can set this from control panel -> portal settings -> Authentication -> LDAP -> How do users au
require from email address,screen name or user ID. At the time of LDAP authentication, we need to
basically reads all the details related to users and usergroups from LDAP directory and import into
with third party we need to give the required field like authentication should be by email address o

How To Customize The Behavior Of Liferay Default Out Of The Box Portlets (e.g. Document V

If we need any customization, related to JSP and UI then we can implement this using Hooks. Life
default built in portlets exist. If any customixation required in the core level classes then it can be c
user groups import modification. but here in EXT, restart would be required.

What Is Liferay Service Builder? Is There Any Alternative To Use Service Builder? What Are Using It?

Liferay service builder is basically used to create the service layers for any business logic impleme helpfull as it used to create all the service layers automatic. Suppose we want to develop a portlet, implementation classes, utility cleasses and other required classes. Service builder is used to crea can add their business logic further and process the data and render the output to view as per the

As per the advantage, this service builder will create whole structure of the service layers for devel code and their logic in service builder created model implementations and service implementation CRUD (create, update and delete)operations. For developer, no need to add anything extra as wh created by service builder. It really speed up the developement process.

Service builder requires service.xml which is having some of the required entries. Each of the entry primary key fields with some other required fields. If we want to implement order and finder method service.xml.

Each entity creates table into liferay configured database with the given column names and their ty service and remote-service by setting them value as "true". When we would run this build-service layers(implementation, utility etc.) where developer can write their required business logic further. done by the build.xml, we need to build-services using this xml file into Ant view of IDE.

How To Set The Display Category Of A Custom Built Liferay Portlet ?

We can set the display category like below mentioned liferay-display.xml. Suppose we have devel provided. We need to enter the custom built liferay portlet into certain category like name "category this custom built liferay portlet would come in required category by clicking the add application fea portlets under different categories. So below tag we need to enter for the entry of a portlet into cer

<display>
<category name="category.cms">
<portlet id="20" />
</category>
</display>

How To Support Internationalization (i18n) On Liferay Portlets? How Do You Support Multip Liferay?

We can support internationalization (i18n) on Liferay portlets and through out this whole Liferay po need to support into LIferay portal. This is mainly reads the regions number and provide the availa SG(singapore), zh_CN(simple chinease), zh_TW(traditional chinease), ja_JP(Japanease).

In the same way to provide support of multiple languages without writing java code in Liferay, we c portlet, hooks and themes. This entry we can provide into same portal-ext.properties which Liferay translation accordingly.
locales=en_US,zh_CN,zh_TW,ja_JP,ko_KR

If we are writing some custom messages in out code then we need to provide the below property fi of Locales would convert it accordingly. We can use LocaleUtil in our code which will convert the c

For example we want the assetCategory title in multi languages then we need to use this assetCat we have mentioned earlier would be in action and pick the given title name from certain locale rela

Language_en_US.properties
Language_zh_CN.properties
Language_zh_TW.properties

What Are The Advantages Of Using Tomcat Bundle Of Liferay Against Other App Servers (e.

It is possible to use Liferay with Liferay IDE with other then tomcat server bundles but there are so available:
Native eclipse server adapter that supports launching and debugging.
Deployment via add/remove modules wizard would not be available.
Auto redeployment based on changes to project resources.

Which One Is Best To Start In A Clean Setup?

Liferay bundle with tomcat app server is the best one to start in a clean setup.

How Do You Perform Junit Tests On Your Portlet?

Junit tests are there to check the code mainly by providing the value of any method input paramet

values.

```
public class MyEmployeeTest {
 ClassPathXmlApplicationContext context = new ClassPathXmlApplicationContex
   "ApplicationContext-service.xml");
 public void testMyMethod() {
  UserService employeeService = (UserService) context.getBean("userService"
  //Provide the user Id as 101581
  User user = storeService.findUserByUserId(1234);
  //get the employee
  Set employee = user.getEmployeesForUserId();
  System.out.println("Employee Name : "+employee.getName());
 }
}
```

How Will You Configure A Portlet That Can Be Added Multiple Times On A Portal Page?

One property is there in portlet.xml which is as follows:

```
<instanceable>true</instanceable>
```

by using the value true and false we can configure a portler that can be added multiple times on a

How Can You Customize Liferay Search Feature? What Are The APIs To Do It?

We can customize Liferay Search feature, depends upon our requirement by below two ways.

Hook : If changes are required as per the view side like we need to change the search result form to customize it.

EXT : If changes are required as per the core functionality like we need to change the search quer

How Can You Integrate Liferay With An External Content Management System (e.g. Alfresco

Liferay passes user credentials through CMIS to the alfresco in order to connect. To enable this in property in portal-ext.properties which will allow liferay to store password in session.
session.store.password=true

Also one more thing we need to take into consideration is that Liferay passes logged in user's cred here) as described above. What this means is that userid/password in liferay must match userid/pa loginid (which is similar to screen-name in liferay) to authenticate user. So we need to make liferay making following entry into portal-ext.properties.

company.security.auth.type=screenName

So we need to start Liferay. Login as administrator and go to control panel. we need to go to Docul where we need to click on Add -> New Repository. this will bring one screen where we basically pr like below.

Name: Give any name you want to give to your repository view in liferay. For example, I will give Alf
Description: A brief description about it.
Repository Type: We can connect either using AtomPub or using web services.
AtomPub URL: This will be the CMIS repository URL where our alfresco is running. In our case, it's /api/cmis (Note: In case of Alfresco 4.0, it will be http://host:port/alfresco/cmisatom).
Repository ID: It is basically used to connect to a specific repository incase we have multiple repos repositoryId, then it will just look for the first repository using the given parameters and set it to tha

How To Setup A Liferay Cluster From Scratch?

We need to setup below properties in our portal-ext.properties(this is for one instance represented second instance also represented by 2p) and some required IP addresses.

```
#cluster configurations - these settings are for cluster
net.sf.ehcache.configurationResourceName=/myehcache/hibernate-clustered.xml
dl.store.file.system.root.dir=/webapps/document_library_cluster
#other settings for cluster
liferay.home=/webapps/liferay-1p/liferay-portal-6.1.10-ee-ga1/
lucene.dir=/webapps/liferay-1p/liferay-portal-6.1.10-ee-ga1/data/lucene
cluster.link.enabled=true
lucene.replicate.write=true
multicast.group.address["cluster-link-control"]=239.255.4.1
```

How To Use AUI In Liferay? What Are The Advantages Of Using It In Liferay Instead Of JQue

AlloyUI (AUI) is Liferay's open-source javascript library. It is built on Yahoo User Interface (YUI) and
javascript functions specifically designed for portlets. As it is Liferay provided JS library here no ne
advantage of and incorporate patterns from the best libraries to make building robust and flexible
CSS framework, a set of HTML recipes and a taglib library, all combined to empower developers ad
dynamic applications. Only we need to add certain tag library like below in order to use Liferay Allo

```
<taglib>
        <taglib-uri>http://liferay.com/tld/aui</taglib-uri>
        <taglib-location>/WEB-INF/tld/liferay-aui.tld</taglib-location>
</taglib>
```

So further we can use these all form and fields like below in our JSP code.

```
<aui:form>
    <aui:input name="Name" size="45" />
</aui:form>
```

How To Use JQuery In Liferay?

We need to provide the entry like below in our JSP files. So that it can read the provided java scrip
accordingly.

```
<script type="text/javascript" src="<%=themeDisplay.getPathThemeCss()%>/../
```

How To Configure Liferay To Use A JNDI JDBC Datasource Instead Of Internal C3pO Connect

We need to do the entry of perticular resource with some certain parameter like name, factory, driv
password.
Below is the entry of resource where JDBC datasource is configured.

```
<Resource type="javax.sql.DataSource"
           name="jdbc/LiferayPool"
           factory="org.apache.tomcat.jdbc.pool.DataSourceFactory"
           driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://<IP-Address>/<database_name>?autoReconnect=true&amp;us
           username="liferay"
           password="0bknSWE2zzl"
           initialSize="10"
           maxActive="200"
           minIdle="0"
           />
```

Below is the entry of resource where c3p0.ComboPooledDataSource is configured.

```
<Resource
    name="jdbc/LiferayPool"
    auth="Container"
    type="com.mchange.v2.c3p0.ComboPooledDataSource"
    factory="org.apache.naming.factory.BeanFactory"
    driverClass="com.mysql.jdbc.Driver"     jdbcUrl="jdbc:mysql://<server-IP
    user="liferay"
    password="0bknSWE2zzl"
    minPoolSize="10"
    maxPoolSize="100"
    />
```

I hope you find this list useful. Are you a Liferay developer? Feel free to suggest any questions we

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